Inquiring Minds

News and notes from the Department of Clinical Investigation, WRAMC
November/December, 1999

Next WRAMC Research Course Date Announced: 9 March 2000

DCI is pleased to announce that the WRAMC Research Course will be presented on Thursday, 9 March 2000. The course will be held from 0800 to 1530 at the Town Center Hotel, 8727 Colesville Road, in Silver Spring, MD. This course is required of all WRAMC personnel who wish to serve as a Principal Investigator (PI) on a research protocol at WRAMC.

As part of its ongoing efforts to maintain currency on issues of interest to the WRAMC research community, several new topics to the Research Cours e have been added. New topics which have been added to the course include a discussion of DCI's laboratory facilities and support for researchers, a talk on how to obtain and manage extramural funding for research, and a talk on commonly-made mistakes in protocol applications and how to avoid them.

Registration information will be made available via wide distribution on Outlook and CHCS e-mail. Additionally, registrants are urged to sign up for the course via the DCI Web site; the page for r egistration for the Research Course is Http://www.wramc.amedd.army.mil/departments/dci/RegEmail3.cfm

IRB Calendar

The following Institutional Review Board (IRB) meetings will be held in the months of January and February of 2000:

CLINICAL INVESTIGATION COMMITTEE (CIC):
4 January
11 January
1 February
8 February

HUMAN USE COMMITTEE (HUC):
18 January
25 January
15 February
22 February

All meetings will begin at 1300 and will be held in the fourth floor conference room, Building 6, WRAMC.

DCI Interviews COL Michael Dunn, MC, WRHCS Commander

Colonel Michael Dunn has achieved success as both a talented clinician and a world renowned researcher. In addition to his administrative responsibilities as hospital commander, COL Dunn also serves as a staff gastroenterologist. His research interests include medical chemical defense and tropical medicine with a focus on viral and parasitic liver disease. COL Dunn has authored or co-authored over 40 articles as well as 10 book chapters.

In a recent interview with DCI, Colonel Dunn offered young physicians guidance on the role of research in the career of a military physician.

We first asked the commander about the importance of s cientific research for residents and fellows. COL Dunn made clear his feeling that research experience significantly enhances a physician's medical acumen. "The importance of critical thinking, the evaluation of evidence, and the practice of evidence based medicine all support the notion that a doctor with a first hand understanding of research is likely to be a more effective doctor overall." Dunn added that the extent of that experience should be tailored to an individual's interests and abil ities. When asked about the potential to conduct research within the military, Dunn commented that the military medical system provided good opportunities for young investigators, and he felt strongly that there was a clear need for physicians who understood research progress within the military. Dunn pointed out that the unique health threats faced by military members offer challenging research opportunities for our physicians. "Many of the potential problems that we face would not receive at tention in the civilian research community, and many of the things we do as military physicians are under unique circumstances," Dunn commented. Physical stresses, deployments, and chemical and biological warfare threats were some examples that Colonel Dunn used to illustrate this point.

(Continued on Page 2)

Interview with COL Dunn, WRHCS Commander (continued)

Colonel Dunn pointed out that one significant benefit of many military research programs is available funding. "The support available for research that will help us with the military mission is strong." Dunn pointed out examples of research programs with foundations in the military mission including tropical medicine, environmental stress, trauma, production of blood substitutes, and malaria. The bottom line, Dunn says, is "if the military mission coincides with research objectives, you have t he whole Army behind you."

DCI asked Colonel Dunn about his own areas of research interest, as well as some of his research experiences. According to Colonel Dunn, his interest in tropical medicine springs from an opportunity he had as a college undergraduate. "I worked in an Entomology lab that was focused on the genetics of the Yellow Fever mosquito. This led to an ongoing interest in tropical medicine, so when I finished training it was natural to turn to viral and parasitic liver diseases a s something that was extremely interesting and had military importance." Colonel Dunn had an opportunity to explore his interest in parasitic liver disease earlier in his career when he served with the US Navy Medical Research Unit No. 3, stationed in Cairo, Egypt.

His interest in medical chemical defense was "discovered" while serving as 3d Armored division surgeon in Germany. "I got a phone call at 3 am and MG Phil Russell told me that my next job would be chief of medical chemical defense for the Army." Dunn adds that he had the privilege of working with some very talented and capable researchers in his new position who provided valuable training in chemical defense. During Operation Desert Shield/Desert Storm, Colonel Dunn was responsible for the protection of US forces against chemical warfare agents. In terms of today's chemical weapons threat, Colonel Dunn emphasized that we must continually think about and remain prepared for the threat of chemical attack.

We also spoke with Co lonel Dunn about a recent laboratory experience he had--as a student in DCI's Molecular Biology Course. Colonel Dunn had some very positive comments on the course, which is offered twice a year (in October and April) and provides clinicians with exposure to various molecular biology techniques. "It's a terrific course," Dunn commented. "It gives clinicians a wonderful overview of not only the concepts but also the depth and intensity of support available for research projects."

DCI thanks COL Dunn for his valuable comments.

"To Err is Human: Building a Safer Health Care System"-- a Brief Review of this National Academy of Sciences Report and its Research Implications

(Editor's Note: Portions of this article are summarized from the original report.)

The National Academy of Sciences' Committee on Quality of Health Care in America recently published a report entitled, "To Err is Human: Building a Safer Health Care System"-- a report which gained a good deal of attention in the mainstream press. The premise of the report is that various forms of medical errors and other types of adverse events occur in a small but notable percentage of hospitalizations in the United States, and that a number of these adverse events lead to death. In fact, the report makes the suggestion that the number of American deaths which occur due to medical error may be as high as 98,000 annually-- which would make medical error the fourth-largest cause of death in the United States. The cost of these errors to the American economy, in terms of health care, labor, disability, and other costs, is estimated in the report at anywhere between $17 billion and $29 billion. The report continues to outline specific reforms which the committee suggests to reduce the number of medical errors over the long-term, and reduce the costs of these errors, in human as well as in economic terms, accordingly.

The purpose of this article is not to provide a critique of the report itself (the report can be found on the World Wide Web at http://books.nap.edu/html/to_err_is_human) but to examine the implications of this report on research. What roles are there for researchers to play in reducing medical errors, given the recommendations outlined in this report?

The primary area in which research opportunities may exist is in the area of patient safety. The report states that "health care is a decade or more behind other high-risk industries in its attention to ensuring basic safety". In these terms, "basic safety" is defined as more than physical plant maintenance of a health care facility; it is defined as the implementation of patient-conscious practices throughout the health care service process, all the way to the delivery level. The report ment ions that other industries, such as aviation and occupational health, have been successful in improving safety in their fields. Additionally, one of the report's major recommendations is the creation of a federal Center for Patient Safety which would set national goals for patient safety, issue an annual report to the President which

(Continued on Page 6)

Impact Statements: their role in the protocol application

It is important that all protocol applications identify the resources-- in terms of both personnel as well as financial support-- necessary to support the protocol through completion. It is also important to recognize that this support is not simply given through DCI (for intramural protocols) or through a granting agency or intermediary (for extramural protocols). This support is also given to research by other Departments within WRAMC, including Nursing, Pathology (DPALS), Pharmacy, and R adiology.

These departments cite their support for research protocols through the use of impact statements. An impact statement is a description of the work required by that department in order to provide full support for the protocol. The impact statements may list facilities to be used, services of personnel which are to be involved, or financial support which may be given by that department to provide support to the protocol.

Each impact statement for a particular protocol must be signe d by the chief of the involved department (or their designee) and included in the protocol application. While impact statements are not required by DCI to be included in the protocol application packet until the application packet is ready to be sent to the Human Use Committee (HUC), we strongly urge that the impact statements be delivered to DCI as soon after they are approved as possible.

In cases of extramurally-funded research where an intermediary (HMJF, TRUE, FACT, Geneva, etc.) is ma naging the funds, the intermediary may supply one of their employees on-site at WRAMC who will route the impact statements through the appropriate departments.

What is an exempt protocol?

Certain types of research do not fall within the purview of the Institutional Review Board (IRB) and may qualify to be granted exempt status. Retrospective chart reviews of 20 or more records, without identifiers, after data collection, can be exempt from the review of the WRAMC IRB (ie, Human Use Committee). In addition to the category of Existing Records and Specimens, which is used for retrospective chart reviews, there are four other categories under which a protocol may be considered exempt. These categories are: Health Care Delivery and Epidemiology, Educational Methods, Education Tests and Public Behavior. Most of these categories require subjects' identification to be anonymous.

In order to qualify for exempt review status the project must involve no more than minimal risk to the research subjects. For detailed information see Army Regulation 40-38 (Clinical Investigation Program), Appendix B.

An IRB Exemption Certification Application is available on the DCI web site, on the DCI template disk (filename exemptrv.doc) or by calling DCI at 782-7833. Upon completion of the application, including signatures of the service chief and department chief, the packet should be sent to the Exempt Protocol Coordinator in DCI. Two or three reviewers within DCI(COL Sjogren, MAJ Dinauer, Dr. Chang) will review all exempt applications. The reviewers have the options of granting exemption from further review, requiring clarification to ensure the protocol meets exempt criteria, or determining that the protocol does not meet the criteria for exemption. When protocols are determined not to be exempt, a full protocol may be submitted to the DCI for the review and approval by the CIC and/or HUC.

Funding from DCI for exempt protocols is limited to travel ($1,000 for a TDY trip to present the results of the research) and reprints ($500) for up to 2 exempt protocols per fiscal year. No othe r support, such as consumable supplies or computer support, is available for exempt protocols. There will be no continuing review or audits of the project. The Exempt Protocol Coordinator in DCI is Vicki Miskovsky, Room 4035, phone 782-7833.

Sample size estimation for a research study protocol (continued)

The standard deviation is the square root of the variance. The variance is a measure of spread around a measure of central tendency. The variance is computed as the average squared deviation of each number from its central tendency measure. As the root of the variance, the standard deviation is by far the most widely used measure of spread. The standard deviation considers every score, has extremely useful properties when used with a normal distribution, and appears in many formulas in inferential statistics (HyperStat Online). This value can either be used and cited from the published literature or based on informed, professional judgement.

Clinically significant difference (also know as the effect size) . The effect size is a value of the difference between the groups in the proposed study that the investigator considers clinically meaningful. The value should be grounded in both the literature and professional practice.

For most clinical studies, the significance level will be alpha=0.05 with a power of 80 percent. The investigator should propose a minimum value of clinically significant difference (this value can be estimated from the means (or proportions) and standard deviations of similar studies in the literature) and a draft protocol or a description of the proposed research study design. With these pieces of data and information, a biostatistician can calculate an estimated sample size for your study and provide a "sample size" statement that may be used in preparing a research study protocol.

BMAR Calendar for January, 2000 and February, 2000

BMAR will be held on the following dates in Janaury, 2000, and February, 2000. BMAR is held from 0730-1200 in the Joel Auditorium, Building 2:

6 January
20 January
10 February
24 February

The following DCI personnel have birthdays in the months of January and February:

Yvonne Lukes
Bader Fileta
SSG Merriwether
COL Sjogren
Susan Barnes

Happy Birthday, but please don't forget to attend your BMAR training!!

Welcome to the following new DCI employees:

Andre Junior--
Office of the Chief

NAS Report (continued from page 2)

would report on the progress toward meeting these goals, and promote various activities in the health care community geared towards improving patient safety.

Based on this recommendation, a possible research application would be the examination of safety systems within health care organizations. In addition, researchers could comparatively examine the safety systems in health care organizations and in organizations of similar characteristics in different industries, and assess the similaritie s and differences found therein. Another possible research application would be to identify a particular error in a patient safety system, and to quantify the cost to the health care organization of that error over time. There are many other possibilities.

While the research community should examine opportunities for research in the area of patient safety, it should also be aware of the possible implications if the issue of patient safety fails to be addressed, either by the industry itself or through federal intervention. The costs of patient error on the health care system, as described in the report, are considerable. These costs serve not only to handicap the nation's health care system as it pertains to patient care, but also, to its ability to conduct clinical research. The entire industry would realize tremendous savings if the report's hoped-for 50% reduction in errors in five years occurs as projected. This savings would certainly allow health care organizations to dev ote more of their resources toward research efforts.

In issuing this report, the National Academy of Sciences has started a national discussion on the issue of medical errors. While time and various external factors will determine whether or not any of the report's recommendations will become reality, it is important to track this issue, and to be aware that how this issue is addressed may affect clinical research.

Inquiring Minds is published six times a year by the Department of Clinical Investigation, WRAMC, as a service to DCI employees and the WRAMC research community.
Any submissions or questions about content should be directed to the editors:
Mr. William Woodcock, (202) 782-7829
MAJ Andrea Stahl, (202) 782-7823

University of Kentucky's Selwitz speaks at USUHS on IRB role

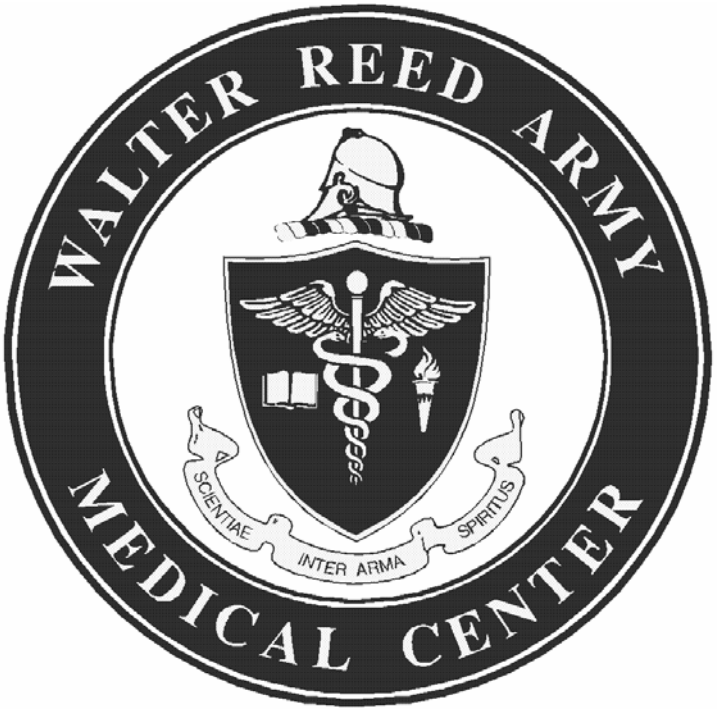
On Friday, 5 November, Ms. Ada Sue Selwitz, Director of the Office of Research Integrity at the University of Kentucky, gave a talk entitled, "Everything you wanted to know about IRBs but were afraid to ask" at USUHS. This talk was attended by researchers, regulatory officials, Institutional Review Board (IRB) members, and others from WRAMC, USUHS, NNMC, and other institutions.

A main purpose of the talk was to explain the purpose of the IRB in maintaining the validity and integrity of cl inical research in all its forms, and especially where human subjects are concerned. Volume 45 of the Combined Federal Regulations (CFR) defines "research" as " A systematic investigation designed to develop or contribute to generalizable knowledge" (paragraph 46.102(d)). The same volume of the CFR defines "human subject" as "A living individual about whom an investigator...conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information" (paragraph 46.102(f)). Ms. Selwitz's talk stressed the importance and maintenance of the ethical principles regarding research on human subjects-- respect for persons, beneficence, and justice-- which flow from the above definitions.

From that point, Ms. Selwitz's talk went into a description of what the IRB is: its structure, function, and authority. In terms of structure, diversity of IRB membership was stressed. Institutions should strive to staff their IRBs with members of varied professions, levels of experience, background, and include members whose primary concerns are in nonscientific as well as in scientific areas, even including membership by someone who is otherwise unaffiliated with the institution.

With regard to function, Ms. Selwitz outlined the main functions of IRB review. Those functions are: to ensure that risks are minimized and reasonable in relation to anticipated benefits; to ensure that there is informed consent; and to ensure that the righ ts and welfare of subjects are maintained. These three points closely resemble the principles of respect for persons, beneficence, and justice that were described above.

Ms. Selwitz also described the scope of authority of the IRB. There are four main areas of authority to an IRB: to approve, disprove or modify a protocol application; to conduct continuing review on current protocols; to observe and verify changes to protocols; and to suspend or terminate protocol approval. With regard to i nitial review of the protocol application, the two mechanisms of review-- expedited and full-- were discussed. The talk addressed the categories, requirements and criteria for conducting expedited review, and the requirements for conducting full review were also covered. Lastly, Ms. Selwitz explained the requirements for conducting continuing review.



Research Review Service Report: New Data Analysis Service offered

DATA ANALYSIS WALK IN CLINIC BY DCI BIOMETRICS
(Dr. Chang, Dr. Fant, Ms Howard, & Ms Maydonovitch)
FOR WHOM: For investigators in the process of analyzing research data and who know what they want but do not know how to do it.
PURPOSE: To troubleshoot problems and provide technical support for data analysis.
OPEN (No appointment necessary): Starting 29 November 1999
Monday 1100-1300 hours
Tuesday 0645-0900 hours
Thursday 1530-1730 hours
SUGGESTED TYPES OF ASSISTANCE:
Creating a database file in SPSS or Excel; For existing data, statistical analysis including descriptive statistics, confidence interval, Chi-square test, Fisher Exact test, non-parametric methods, or any questions that can be figured out within the limited time. Questions that require more involvement can be resolved by scheduling an appointment with a DCI statistician.
LOCATION: DCI Computer Room 4075, 4th Floor, Building 6 (Borden Pavilion).

Sample size estimation for a research study protocol: What do I need for a sample size to be calculated for my study?

By Gregory Fant, PhD, MPA, MSPH

DCI welcomes Dr. Fant to its Biometrics Section, Research Review Service. Dr. Gregory Fant received a doctorate from the University of Nebraska at Lincoln; graduate degrees from the University of Nebraska at Omaha (public administration) and Columbus University (public health); and a certificate in epidemiology from the U.S. Centers for Disease Control and Prevention. The current research interests of Dr. Fant include research design and methods, health data analysis, and health and social policy for the poor. Before transferring to Walter Reed Army Medical Center, Dr. Fant worked for the U.S. Department of Commerce as a statistician in the Census Bureau; Park College Graduate School of Public Affairs in Kansas City, Missouri, as an adjunct graduate professor of research methods; Ponca Tribe of Nebraska Tribal Health Department as an assistant director of health and health policy analyst; and University of Nebraska at Omaha as an instructor in public administration.

Dr. Fant, along with Dr. Audrey Chang and Ms. Robin Howard, are available to provide statistical consultation to WRAMC investigators with approved protocols. The Biometrics section now offers a walk-in consultation service (see article above).

Sample size is a necessary element in analyzing data and evaluating a hypothesis with a statistical test. When evaluating a research study protocol (also known as a research proposal), the descriptions provided by the clinical investigator concerning research design and statistical methods (including sample size and study hypotheses) are indicators of whether a study would produce statistically and clinically meaningful results. In particular, a study with an appropriate sample size can save the investigator time by identifying the amount of raw data to collect and analyze. A proper sample size can also save money if it was allocated for executing the proposed study. Given the practical importance of sample size to a research study proposal, a researcher may ask, "What do I need for a sample size to be calculated for my study?"

During the literature review of previous studies on a given topic of clinical interest, the investigator should note the research design and statistical methods used in a published study that addresses a similar research aim. After reviewing the literature, the sample size can be determined with the following factors: desired level of significance, desired statistical power, estimated mean (or proportion) for the study group(s), estimated standard deviation, and expected clinical difference. Each factor is briefly discussed.

Level of significance (also known as, significance level, Type I error, or alpha). In evaluating a clinical hypothesis, the significance level is the criterion used for rejecting the null hypothesis. If the probability is less than or equal to the significance level, then the null hypothesis is rejected and the finding is said to be statistically significant (HyperStat Online). In clinical studies where a comparison of group statistics is involved, the alpha often used is 0.05.

Statistical power (also know as, power, Type II error, or beta). Power is the probability of correctly rejecting a null hypothesis which is, in fact, false. Power is therefore defined as: 1 -b where b is the Type II error probability. If the power is low, then there is a chance that the study will be inconclusive. The problem of low, statistical power can be corrected by increasing the sample size or by a redesign of the study (with attention to the factors that determine power) before collecting raw data (HyperStat Online). Again, in clinical studies where a comparison of groups is involved, an acceptable power often used is 80 percent.

Mean (or proportion). The investigator should record the population mean or proportion from the published literature for the study groups of interest. If the proposed study will contain groups similar to those in the published literature, then the published values may be used and cited in calculating the estimated sample size of the proposed study. The investigator can also use informed judgement and provide a mean or proportion for the groups to be studied.

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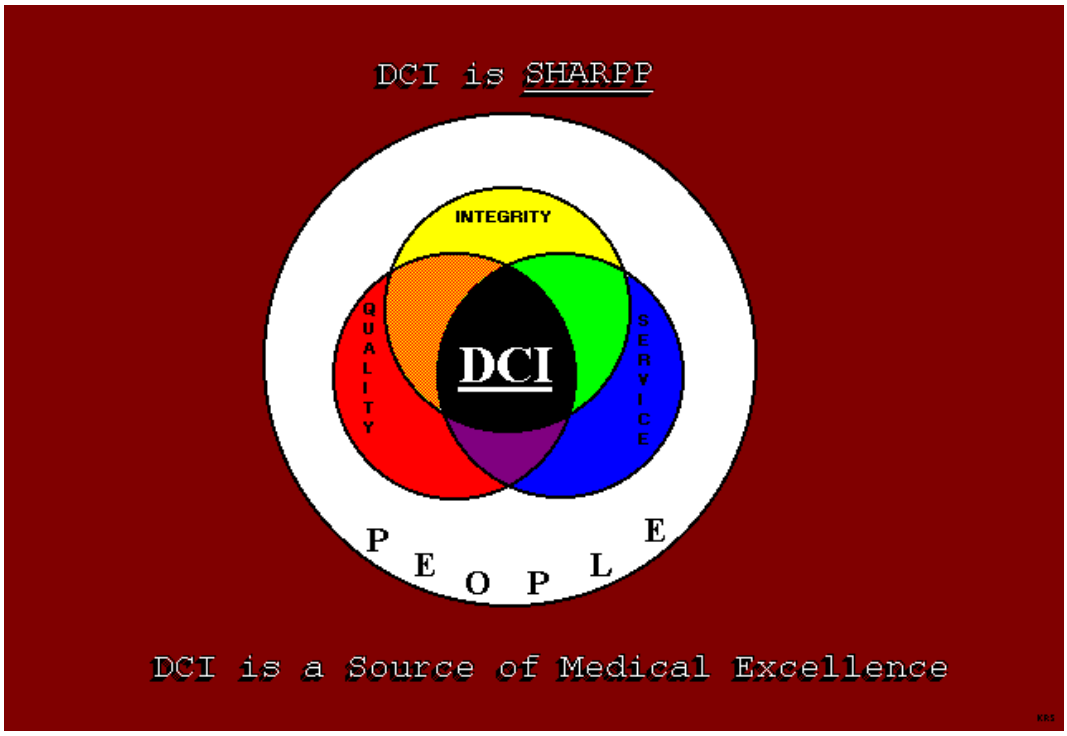

Research Administration Service News

--- As of 31 December 1999, Public Law 105-264 mandates the use of the government travel card to pay for all official Government expenses which are incurred by DoD personnel, with the exception of airline tickets. It is therefore necessary for all personnel, military or civilian, who take advantage of travel opportunities while at WRAMC, to obtain a government travel card. An application for this card may be obtained and filled out in the Executive Office, WRAMC. Please contact SSG Hurst at (202) 782-3583 in order to complete an application. Contract personnel and other non-federal employees are not eligible for the government travel card.

--- We would like to take the opportunity to stress to all investigators that protocol budgets be included in all protocol applications at time of submission. This is true for extramurally-funded protocols, as well as intramural protocols, where DCI is the only anticipated source of funding. For extramural protocols, a budget statement from the intermediary (or budget page from the application, if a grant) would suffice. Inclusion of these budgets are important, in order for RAS to provide adequate administrative support for protocols.

--- We often receive letters of proffer in support of various protocols. A letter of proffer is a document, written by an intermediary or a private company, which offers an investigator funds for travel, loans or gifts of equipment and supplies, or other items to support research. Effective immediately , we request from all authors of proffer letters that the Work Unit number (WUNO) and/or protocol title which the proffer letter supports be included in the body of the letter. This is required in order to assess the total support given to each particular protocol from all sources.

--- The POC for the below item is MAJ LaFrancois, Chief, Program and Budget Branch, DRM, at (202) 782-0281:

In the October 1999 issue of the San Antonio Highlight guidance was provided for the requirement to have all travel settlement vouchers (DD Form 1351-2), both military and civilian, signed by a Travel Approving Official. References for this guidance is the Joint Travel Regulation (JTR), paragraph C5006 and Travel Tech Message 99-22 dated 13 Oct 99. On 28 Oct 99, further guidance was received per Travel Tech Message 99-23 dated 28 Oct 99, establishing the Supervisory Review requirement for m ilitary members instead of the requirement to have their vouchers signed by a Travel Approving Official.

Implementation date for DFAS-SA/FPT customers is January 1, 2000. Travel settlement vouchers received in the Travel Branch after January 1, 2000 without the proper signature (reviewer for military and Travel Approving Official for civilians) will be returned to the traveler.

Happy Holidays and Best Wishes in the New Year!

-- DCI

Recently-approved protocols at WRAMC

Congratulations to the following principal investigators on their recently approved protocols.

DENTAC

9401-99Office based harvest and use of platelet-rich plasma in intra-oral bone grafting
Closmann, James J., MAJ, DE10/14/99

Department of Allergy-Immunology

3390-99A Phase III study to determine the efficacy and safety of CI-Inhibitor (HUMAN) vapor heated, immuno in subjects with hereditary angioedema (HAE)
Engler, Renata JM, COL, MC11/19/99

Department of Clinical Investigation

00-9201Role of Focal Adhesion Kinase and E-cadherin in differentiated thyroid cancer
Patel, Aneeta, MSC, DAC11/4/99

Department of Medicine
Cardiology Service

00-1201A randomized trial comparing the effects of Atorvastatin and Pravastatin on carotid-intimamedia thickness
Taylor, Allen, MAJ, MC11/1/99

Dermatology Service
1831-99A randomized, placebo-controlled, multiple dose, double-blind study of the efficacy of Terbafine HCl cream (1%) for the treatment of tinea pedis in military personnel
Keller, Richard, LTC, MC11/29/99

Hematology-Oncology Service
1521-99CALGB 49802: Phase III study of Adriamycin/Taxotere vs. Adriamycin/Cytoxan for the adjuvant treatment of node positive or high risk node negative breast cancer
Byrd, John C., MAJ, MC10/29/99

1523-99CALGB 9862: molecular genetic features of acute lymphoblastic leukemia
Byrd, John C., MAJ, MC10/21/99

1625-99A Phase II study of Daunoxome, Cyclophosphamide,Vincristine, and Prednisone followed by Rituximab and GM-CSF for patients with low grade lymphomas
Byrd, John C., MAJ, MC11/10/99

1629-99CLL Research Consortium human subjects protocol for sample collection
Byrd, John C., MAJ, MC10/8/99

Infectious Disease Service
1909-99Analytical analysis of recombinant malari a proteins
Moran, Kim, CPT, MC5/18/99

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Recently-approved protocols (continued)

Department of Nursing

7580-99Chlamydia screening decision study
Agazio, Janice, LTC, AN11/10/99

7581-99A comparison of two different insertion techniques for the laryngeal mask airway- standard vs. 180-degree rotational technique and their relationship to postoperative sore throat
Newcomer, Timothy, LTC, AN10/28/99

Department of Pediatrics

00-6501The role of Ki67 antigen in differentiated thyroid cancer
Francis, Gary, COL, MC10/29/99

00-6502Comparative genomic hybridization of differentiated thyroid cancer
Bauer, Andrew, MAJ, MC11/19/99

6430-99Acute pediatric care in a pediatric clinic vs. A general emergency department: A performance improvement project comparing outcomes and patient satisfaction
Dinauer, Catherine A., MAJ, MC11/3/99

Department of Radiology

Diagnostic Radiology Service
4710-99Comparison of electron beam-computed tomographic virtual colonoscopy, using each patient as their own control
Feuerstein, Irwin, MD, DAC10/5/99

Department of Surgery

Ophthalmology Service
2335-99Initial evaluation of photorefractive keratectomy in US Army personnel
Bower, Kraig S., LTC, MC10/4/99

Orthopedics Surgery Service
00-2401The effect of pedicle screw fit using image guid ed surgery techniques
Polly, David W., LTC, MC12/2/99

2410-99Braided hamstring grafts vs. unbraided grafts and patellar tendon grafts: a biomechanical study
Tis, John C., CPT, MC11/3/99

2412-99A prospective and randomized controlled study to evaluate the performance of inflatable bone tamps in the percutaneous treatment of painful osteopenic vertebral body compression
Polly, David W., LTC, MC10/12/99

2414-99The effect of hook patterns upon the mechanical strength of a long segment posterior construct utilizing a straight and varied angled Kyphotic synthetic model
Polly, David W., LTC, MC10/18/99

2415-99The effect of early stimulation with low intensity pulsed ultrasound on maturation of regenerate bone formation after limb lengthening
Taylor, Kenneth, CPT, MC11/18/99

Otolaryngology-Head and Neck Service
2590-99The effects of speechreading on auditory detection of spoken sentences II: the role of envelope-peak location
Grant, Kenneth W., PhD, DAC8/3/99

2592-99The expression of vascular endothelial (VEGF), VEGFR-1 receptor (FLT-1), and VGFR-2 receptor (FLK-1) in adenoid cystic carcinoma of the salivary gland
Blair, Elizabeth, MAJ, MC11/10/99

Urology Service
2888-99An open-label, randomized, parallel group study comparing the perioperative administration of Procrit (Epoetin Alpha) plus iron alone in patients undergoing radical retropubic prostatectomy for the treatment of prostate cancer
McLeod, David G., COL, MC10/13/99

2889-99Radical prostatectomy of prostate cancer patient and Circulating Cell Cancer Test (CCCT)
Moul, Judd W., LTC(P), MC10/13/9 9

2890-99Creation of a prospective and retrospective database of patients evaluated and treated for urinary incontinence
Zorn, Burkhardt, LTC, MC10/13/99

2891-99Ureteral stenting after distal ureteroscopy and stone retrieval: A prospective randomized study
Schenkman, Noah, LTC, MC10/13/99

Recent WRAMC Publications

Congratulations to the following WRAMC investigators on their recently published papers. The list was compiled from a recent MEDLINE search of the literature. Listed articles have been cleared through DCI and the WRAMC Public Affairs Office. If you have recently published and we have not included your publication, please let us know so we may include your publication in the next issue of the newsletter.

Armonda EA, Thomas JE, Rosenwasser RH. The Interventional Neuroradiology Suite as an Operating Room. Neurosurg Clin N Am 2000 Jan;11 (1): 1-20.

Braverman SE. Acupuncture education and integration in the physical medicine and rehabilitation residency. Phys Med Rehabil Clin N Am 10:75 5-65, xi, 1999.

Byrd JC, Dodge RK, Carroll A, Baer MR, Edwards C, Stamberg J, Qumsiyeh M, Moore JO, Mayer RJ, Davey F, Schiffer CA, Bloomfield CD. Patients with t(8;21)(q22;q22) and acute myeloid leukemia have superior failure-free and overall survival when repetitive cycles of high-dose cytarabine are administered. J Clin Oncol 17: 3767-3775, 1999.

Daniels JT, Davis BJ, Houde-McGrail L, Byrd JC. Clonal selection of CD56+ t(8;21) AML blasts: further suggestion of the adverse clinical significance of this biological marker? Br J Haematol 107: 381-3, 1999.

Eliasson AH, Parker JM, Shorr AF, Babb KA, Harris R, Aaronson BA, Diemer M. Impediments to writing do-not-resuscitate orders . Arch Intern Med 159 2213-8, 1999.

Gaertner EM, Farley JH, Taylor RR, Silver SA. Collision of uterine rhabdoid tumor and endometrioid adenocarcinoma: a case report and review of the literature. Int J Gynecol Pathol 18: 396-401, 1999.

Klemme WR, Burkhalter W, Polly DW Jr, Dahl LF, Davis DA. Reversible ischemic myelopathy during scoliosis surgery: a possible role for intravenous lidocaine. J Spinal Disord 1999 Dec;12(6): 763-5.

Littlefield, PD, Mair, EA. Snoring surgery: which one is best for you? Ear Nose Throat J 78: 861-5, 868, 870, 1999.

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